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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,023	07/31/2001	Xiaobao X. Chen	18-3	3711
7590	02/08/2005		EXAMINER	
Docket Administrator (Room 3J-219) Lucent Technologies Inc. 101 Crawfords Corner Road Holmdel, NJ 07733-3030			NG, CHRISTINE Y	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/919,023	CHEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Christine Ng	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 July 2001.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 is/are rejected.
- 7) Claim(s) 2-7 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 July 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/29/03, 1/14/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ARP entity, DHCP and proxy ARP entity must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The disclosure is objected to because of the following informalities:
  - a) On page 1 lines 20, 21, 28, 30 and 31 and page 2, line 1, "14" should be changed to "10".
  - b) On page 1, lines 22, 25, 27 and 32, "16" should be changed to "14".
  - c) On page 1, lines 23, 24 and 28, "18" should be changed to "16".
  - d) On page 1, line 28, "20" should be changed to "18".

Appropriate correction is required.

***Claim Objections***

4. Claims 2 and 4 are objected to because of the following informalities:
  - a) In claim 2 line 2, "the correspondent node" should be changed to "a correspondent node".
  - b) In claim 4 line 2, "the correspondent node" should be changed to "a correspondent node".

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,535,493 to Lee et al.

Referring to claim 1, Lee et al discloses in Figure 1 a method of delivering packets in layer 2 to a mobile node (130) in a foreign network comprises the steps of:

Setting up a home agent (AP 102 or 104) in a home network of the mobile node (MU 100). Refer to Column 6, lines 15-19.

Allocating a Care of Address to the mobile node (MU 100). Refer to Column 6, lines 35-57.

Setting up a Dynamic Host Configuration Protocol (DHCP). Refer to Column 6, lines 50-56.

Setting up a proxy ARP entity (located in AP 102 or 104). Refer to Column 10, line 66 to Column 11, line 40.

Informing the home agent (AP 102 or 104) of the Care of Address and the Media Access Control address of the mobile node (MU 100). The home agent 102 or 104 maintains a mobility binding list containing a link-layer (MAC) address of the mobile unit and a mobile unit's care-of-address, which is obtained during registration. Refer to Column 9, lines 11-23 and lines 41-45.

Lee et al do not disclose providing an Address Resolution Protocol (ARP) entity.

However, although it is not specifically disclosed, since there is a proxy ARP entity (Column 10, line 66 to Column 11, line 4), there is an ARP entity. A proxy ARP acts as an agent or substitute to an ARP entity. Therefore, it would have been obvious to one or ordinary skill in the art at the time the invention was made to include providing an ARP entity, the motivation being so in case the ARP is busy or not functioning, the proxy ARP can act on its behalf.

Lee et al also do not disclose informing *the proxy ARP entity* of the Care of Address and the Media Access Control address of the mobile node (MU 100). Instead, Lee et al disclose informing *the home agent* (AP 102 or 104) of the Care of Address and the Media Access Control address of the mobile node (MU 100).

However, the proxy ARP entity is located within the home agent. Furthermore, the proxy ARP entity needs the care-of-address and MAC address in order to route packets to a mobile unit when the mobile unit is in a foreign subnet. Refer to Column 10, line 66 to Column 11, line 40. Therefore, it would have been obvious to one or ordinary skill in the art at the time the invention was made to include informing *the proxy ARP entity* of the Care of Address and the Media Access Control address of the mobile node, the motivation being that when a mobile unit is in a foreign subnet, the proxy ARP entity can divert datagrams addressed to the mobile unit to the appropriate home agent. The home agent then uses the care-of-address and MAC address to send the packet to the foreign agent where the mobile unit is currently located.

***Allowable Subject Matter***

7. Claims 2-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng ~  
February 1, 2005



RICKY NGO  
PRIMARY EXAMINER